

560	CCCCCGGTGTGGTACCCGGCGCGCCCCAGGTCG	599
600	TGAGGGACCCCGGCCAGGCGCGGAGATGGGGGTGCACGgtgagtaactcgcgggctggg	659
660	ctcccgcccgcccggtccctgtttgagcggggatttagcgccccggtattggccaggag	719
720	gtggtcgggttcaaggaccggcgacttgtcaaggaccccggaagggggaggggggtggg	779
780	cagcctccacgtgccagcggggacttgggggagtccttggggatggcaaaacctgacct	839
840	gtgaaggggacacagtttgggggttgaggggaagaaggttgggggttctgctgtgccag	899
900	tggagaggaagctgataagctgataacctgggcgtggagccaccacttatctgccagag	959
960	gggaagcctctgtcacaccaggattgaagt ttggccggagaagtggatgctggtagctgg	1019
1020	gggtggggtgtgcacacggcagcaggat tgaatgaaggccaggaggcagcacctgagtg	1079
1080	cttgcatggttggggacaggaaggacgagctggggcagagacgtggggatgaaggaagct	1139
1140	gtccttccacagccaccttctccctccccgcctgactctcagcctggctatctgttcta	1199
1200	<u>gAATGTCTGCTGGCTGTGGCTTCTCTGTCCCTGCTGTGCTGCCCTCTGGGCCTCCCA</u>	1259
1260	<u>GTCTTGGGCGCCCCACACGCCTCATCTGTGACAGCCGAGTCTCTGGAGAGGTACCTCTTG</u>	1319
1320	<u>GAGGCCAAGGAGGCCGAGAATATCACG</u> gtgagacccttccccagcacattccacagaac	1379
1380	tcacgctcagggcttcagggaactcctcccagatccaggaaacctggcacttggtttggg	1439
1440	tggagctgggaagctagacactgccccctacataagaaatagctgtgtggcccaaac	1499
1500	atacctggaaactaggaaggagcaaacccagcagatcctacggcctgtgggcccagggcc	1559
1560	agagccttcagggaccttgactcccgggctgtgtgcatttcagACGGGCTGTGCTGAA	1619
1620	<u>CACTGCAGCTTGAATGAGAATATCACTGTCCACAGACACCAAAGTTAATTTCTATGCCTGG</u>	1679
1680	<u>AAGAGGATGGAG</u> gtgagttccttttttttttttttccctttcttttgagaatctcattt	1739
1740	gcgagcctgattttggatgaaagggagaatgatcgagggaaggtaaaatggagcagcag	1799
1800	agatgaggctgcctgggcgcagaggctcacgtctataatcccaggctgagatggccgaga	1859
1860	tgggagaattgcttgagccctggagtttcagaccaacctaggcagcatagtgagatccc	1919
1920	catctctacaaacatttaaaaaaattagtcagggtgaagtgggtgcattgggtagtcccag	1979
1980	atatttggaaggctgaggcgggaggatcgcttgagcccaggaatttgaggctgcagtgag	2039
2040	ctgtgatcacaccactgcactccagcctcagtgacagagtgaggccctgtctcaaaaaag	2099
2100	aaaagaaaaaagaaaaat aatgagggtgtatggaatacattcattattcattcactcac	2159
2160	tcactcactcattcattcattcattcattcaacaagtcttattgcataacctctgtttgc	2219
2220	tcagcttggtgcttggggctgctgaggggcaggaggagggtgacatgggtcagctga	2279
2280	ctcccagagtcactccctgtagGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGGGCCTGG	2339
2340	<u>CCCTGCTGTGCGAAGCTGTCTCTGCGGGGCCAGGCCCTGTGGTCAACTCTTCCCAGCCGT</u>	2399
2400	<u>GGGAGCCCTGCAGCTGCATGTGGATAAAGCCGTCACTGGCCTTCGCAGCCTCACCCTC</u>	2459
2460	<u>TGCTTCGGGCTCTGGGAGCCAG</u> gtgagtaggagcggacacttctgcttgcctttctgt	2519
2520	aagaaggggagaagggtcttgctaaggagtagcaggaactgtccgtatcccttccctttc	2579
2580	gtggcactgcagcgacctcctgttttctccttggcagAAGGAAGCCATCTCCCCTCCAG	2639
2640	<u>TGCGGCCTGAGCTGCTCCACTGTTGAAACACTCACTGCTGACACTTTCGGAACCTCTTCCG</u>	2699
2700	<u>AGTCTACTCCAATTTCTCTCGGGGAAAGCTGAAGCTGTACACAGGGGAGCCTGCAGGAC</u>	2759
2760	<u>AGGGGACAGA</u> TGACCAGGTGTGTCCCACTGGGCATATCCACCACCTCCCTCACCAACATT	2819
2820	GCTTGTGCCACACCTTCCCCGCCACTCTCTGAACCCCGTCGAGGGGCTCTCAGCTCAGCG	2879
2880	CCAGCCTGTCCCATGGACACTCCAGTGCCAGCAATGACATCTCAGGGGCCAGAGGAAGTG	2939
2940	TCCAGAGAGCAACTCTGAGATCTAAGGATGTACAGGGCCAACCTTGAGGGCC	2999

(ii) 5' modified Epo  
(From pASC2-TKdhfr-10)



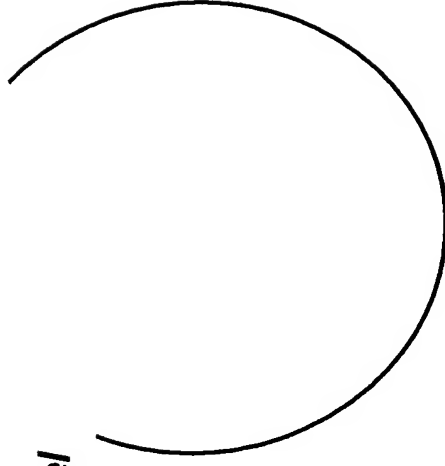
(iii) 3' modified Epo  
(PCR product) fragment

*HincII* ——— *XhoI*

0.4 kb

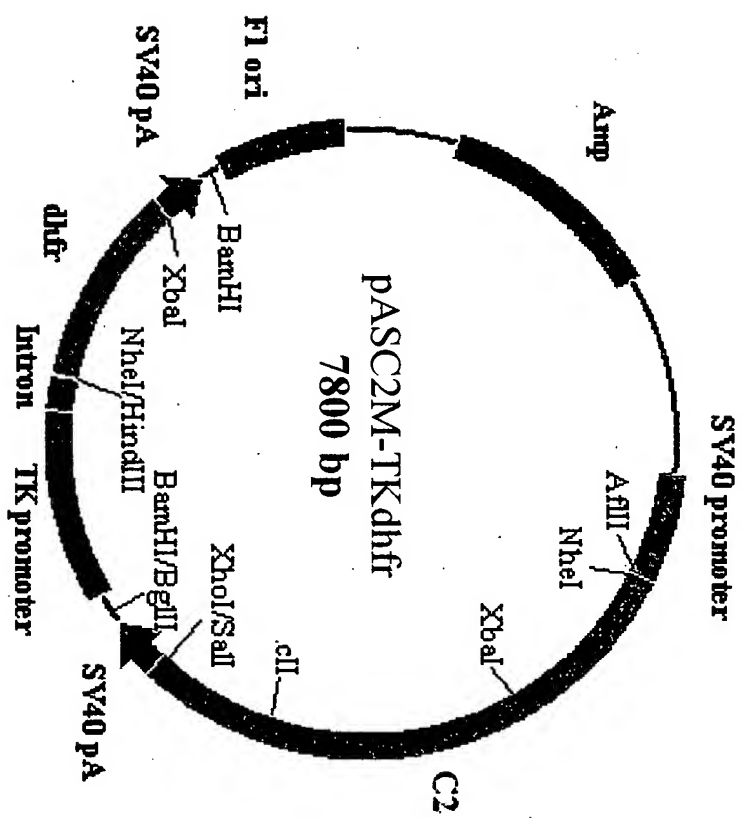
*Sall*

*NheI*



(i) pASC2-TKdhfr-10 5.6 kb

**Fig. 2**



**Fig. 3**

1 TTTTCTTTGTTTTGTTTCCACCA TGGGAGTGCACGgtgagtactcgcgggctgggcgct 60  
61 cccgcccccgggtccctgtttgagcggggtatttagcggccggctattggccaggagg 120  
121 tggctgggttcaaggaccggcgacttgtcaaggacccggaaggggaggggggtggggc 180  
181 agcctccacgtgccagcggggaacttgggggagtccttggggatggcaaaaacctgacctg 240  
242 tgaaggggacacagtttgggggttgaggggaagaaggttgggggttctgctgtgccagt 300  
301 ggagaggaaagctgataagctgataaacctgggcgctggagccaccttatctgccaggagg 360  
361 ggaagcctctgtcacaccaggattgaagtttgcccgagagaagtggatgctggtagctggg 420  
421 ggtggggtgtgcacacggcagcaggattgaatgaaggccaggaggagcagcacctgagtgc 480  
481 ttgcatggttggggacaggaaggacgagctggggcagagacgtggggatgaaggaagctg 540  
541 tccctccacagccacccttctccctcccgccctgactctcagcctggctatctgttctag 600  
601 AATGTCCTGCCTGGCTGTGGCTTCTCCTGTCCCTGCTGTCGCTCCCTCTGGGCTCCCAG 660  
661 TCCTGGGCGCCCCACCACGCCTCATCTGTGACAGCCGAGTCCTGGAGAGGTACCTCTGG 720  
721 AGGCCAAGGAGGCCGAGAATATCACGgtgagacccttccccagcacattccacagaact 780  
781 cagcctcagggtctcaggaactcctccagatccaggaacctggcacttgggttgggg 840  
841 ggagctgggaagctagacactgccccctacataagaataagctctggtggcccaaaacca 900  
901 tacctggaaactaggcaaggagcaaagccagcagatcctacggcctgtgggcccaggggcca 960  
961 gagccttcagggaaccttgactccccgggctgtgtgcatttcagACGGGCTGTGCTGAAC 1020  
1021 ACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAATTTCTATGCCTGGA 1080  
1081 AGAGGATGGAGgtgagttccttttttttttttttcttttcttttggagaatctcatttg 1140  
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1441 tgtgatcacaccactgcactccagcctcagtgacagagtgaggccctgtctcaaaaaaga 1500  
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1681 tcccagagtcactcctgtagGTCTGGGCAGCAGGCCGTAGAAGTCTGGCAGGGCCTGGC 1740  
1741 CCTGCTGTCTGGAAGCTGTCTGCGGGGCCAGGCCCTGTGGTCAACTCTTCCCAGCCGTG 1800  
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2041 GCGGCCTCAGCTGCTCCACTCCGAACAATCACTGCTGACACTTTCCGCAAACTCTTCCGA 2100  
2101 GTCTACTCCAATTTCTCCGGGAAAGCTGAAGCTGTACACAGGGGAGGCCTGCAGGACA 2160  
2161 GGGACAGATGACCAGGTGTGTCC 2184

**Fig. 4**